

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Claim 1 (Previously Presented): A method for decomposing a urethane resin, comprising:

adding, in an extruder, a decomposing agent to said urethane resin to cleave urethane bonds in said urethane resin and capture amino groups generated by the cleaving of said urethane bonds, thereby obtaining a decomposed substance of said urethane resin;

wherein said decomposition agent contains at least one functional group selected from the group consisting of a carboxyl group (COOH), a salt of the carboxyl group, an ester of the carboxyl group and an acid anhydride of the carboxyl group (-CO-O-CO-).

Claim 2 (Previously Presented): The method according to claim 1, wherein the decomposing agent is added in an amount that provides 0.1 to 3 equivalents of the functional group for each equivalent of urethane bond present in the urethane resin.

Claim 3 (Original): The method according to claim 1, wherein the decomposing agent is an anhydride of a polycarboxylic acid.

Claim 4 (Previously Presented): The method according to claim 3, wherein the decomposing agent is at least one compound selected from the group consisting of phthalic anhydride, methyltetrahydrophthalic anhydride, hexahydrophthalic anhydride, and succinic anhydride.

Claim 5 (Canceled):

Claim 6 (Original): The method according to claim 1, wherein the decomposing agent further contains at least one hydroxyl group.

Claim 7 (Original): The method according to claim 2, wherein the decomposing agent further contains at least one hydroxyl group.

Claim 8 (Canceled):

Claim 9 (Previously Presented): The method according to claim 1, wherein the urethane resin and the decomposing agent are mixed under pressurized and heated condition.

Claim 10 (Previously Presented): The method according to claim 2, wherein the urethane resin and the decomposing agent are mixed under pressurized and heated condition.

Claim 11 (Canceled):

Claim 12 (Previously Presented): A decomposed substance of a urethane resin which is produced by

decomposing a urethane resin by

adding, in an extruder, a decomposing agent to said urethane resin to cleave urethane bonds in said urethane resin and capture amino groups generated by the cleaving of said urethane bonds, thereby obtaining a decomposed substance of said urethane resin;

wherein said decomposition agent contains at least one functional group selected from the group consisting of a carboxyl group (COOH), a salt of the carboxyl group, an ester of the carboxyl group and an acid anhydride of the carboxyl group (-CO-O-CO-).

Claim 13 (Original): The urethane decomposed substance according to claim 12, wherein the decomposing agent is an anhydride of a polycarboxylic acid.

Claim 14 (Previously Presented): The urethane decomposed substance according to claim 13, wherein the decomposing agent is at least one compound selected from the group consisting of phthalic anhydride, methyltetrahydrophthalic anhydride, hexahydrophthalic anhydride, and succinic anhydride.

Claim 15 (Previously Presented): A method for producing a recycled resin, comprising:

adding, in an extruder, a decomposing agent to said urethane resin to cleave urethane bonds in said urethane resin and capture amino groups generated by the cleaving of said urethane bonds, thereby obtaining a decomposed substance of said urethane resin; and

reacting the decomposed substance of the urethane resin with a compound that contains at least one functional group selected from the group consisting of an epoxy group and an isocyanate group;

wherein said decomposition agent contains at least one functional group selected from the group consisting of a carboxyl group (COOH), a salt of the carboxyl group, an ester of the carboxyl group and an acid anhydride of the carboxyl group (-CO-O-CO-).

Claim 16 (Original): The method according to claim 15, wherein the decomposing agent is an anhydride of a polycarboxylic acid.

Claim 17 (Previously Presented): The method according to claim 16, wherein the decomposing agent is at least one compound selected from the group consisting of phthalic anhydride, methyltetrahydrophthalic anhydride, hexahydrophthalic anhydride, and succinic anhydride.

Claim 18 (Previously Presented): A recycled resin, which is produced by adding, in an extruder, a decomposing agent to said urethane resin to cleave urethane bonds in said urethane resin and capture amino groups generated by the cleaving of said urethane bonds, thereby obtaining a decomposed substance of said urethane resin; and then reacting the decomposed substance of the urethane resin with a compound that contains at least one functional group selected from the group consisting of an epoxy group and an isocyanate group;

wherein said decomposition agent contains at least one functional group selected from the group consisting of a carboxyl group (COOH), a salt of the carboxyl group, an ester of the carboxyl group and an acid anhydride of the carboxyl group (-CO-O-CO-).

Claim 19 (Original): The recycled resin according to claim 18, wherein the decomposing agent is an anhydride of a polycarboxylic acid.

Claim 20 (Previously Presented): The recycled resin according to claim 19, wherein the decomposing agent is at least one compound selected from the group consisting of

phthalic anhydride, methyltetrahydrophthalic anhydride, hexahydrophthalic anhydride, and succinic anhydride.

Claim 21 (Canceled):

Claim 22 (Canceled):

Claim 23 (New): The method according to claim 1, wherein said cleaving of said urethane bonds and said capturing of said amino groups occurs simultaneously.